

# Notice of Allowability

Application No.

09/711,169

Examiner

Michael J Simitoski

Applicant(s)

CLARK, JAMES MONROE

Art Unit

2134

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the after-final amendment of 10/19/2004.
2. ☒ The allowed claim(s) is/are 1-15,17-37,39 and 40.
3. ☒ The drawings filed on 13 November 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

### DETAILED ACTION

1. The After-final amendment of 1/19/2005 was received and considered.
2. Applicant's remarks state that claims 1-15, 17-37 & 38-40 are pending, however, due to applicant's cancellation of claim 38, claims 1-15, 17-37 & 39-40 are pending.

### *Allowable Subject Matter*

3. Claims 1-15, 17-37 & 39-40 are allowed.
4. The following is an examiner's statement of reasons for allowance:

Regarding claims 1-8, 11-14, 17, 19-30, 33-36 & 39-40, Ritter in view of Dent, Mansoorian & Devereux teach a transposition combiner, as described in the Office Action dated 10/19/2004, but the prior art relied upon fails to teach or suggest an input block consisting of  $2^N$  data elements wherein the input block of data elements is permuted using no more than  $N \cdot 2^{N-1}$  random bits, in combination with the other elements of the claims. Ritter's permutations disclose 2 examples, (1) an input ( $2^{N=18}$  data elements) requiring 2,097,152, 21-bit random values (which is 44,040,192 bits  $> 18 \cdot 2^{N-1=17} = 2,359,296$  bits) (p. 6, ¶6) and (2) an input ( $2^{N=9}$  data elements) requiring 512, 12-bit pseudo-random values (which is 6,144 bits  $> 9 \cdot 2^{N-1=8} = 2,304$  bits) (p. 9, ¶1). Further, it is well known that a seed can be used to generate a pseudo-random number that is much greater in size than the seed; however, the specification (p. 16, ¶3) discloses the use of  $N \cdot 2^{N-1}$  bits directly.

Regarding claims 9-10 & 31-32, Ritter in view of Dent, Mansoorian & Devereux teach a transposition combiner, as described in the previous Office Action, but the prior art relied upon fails to teach or suggest altering random data to produce an output block that is a different

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random permutation of the input block of data elements, wherein only a subset of the random data is altered, such that ordering of data elements in consecutive output blocks is not independent, in combination with the other elements of the claims.

Regarding claims 15 & 37, Ritter in view of Dent, Mansoorian & Devereux teach a transposition combiner, as described in the previous Office Action, but the prior art relied upon fails to teach or suggest determining whether the output data element formed has a predetermined value and, if so, substituting a data element having a different value for the output data element, such that the output block does not include the output data element having the predetermined value, in combination with the other elements of the claims.

Regarding claim 18, Ritter in view of Dent, Mansoorian & Devereux teach a transposition combiner, as described in the previous Office Action, but the prior art relied upon fails to teach or suggest forming a truncated permutation that is a permutation of only a subset of the data elements in the input block, wherein the truncated permutation includes data element occupying selected positions in the output block, which originated from selected positions in the input block, and excludes data elements occupying excluded positions in the output block, which originated from excluded positions in the input block by performing steps (c1), (c2) and (c3) as recited in the claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Simitoski whose telephone number is (571) 272-3841. The examiner can normally be reached on Monday - Thursday, 6:45 a.m. - 4:15 p.m.. The examiner can also be reached on alternate Fridays from 6:45 a.m. - 3:15 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse can be reached at (571) 272-3838.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, DC 20231

**Or faxed to:**

(703)746-7239 (for formal communications intended for entry)

**Or:**

(571)273-3841 (Examiner's fax, for informal or draft communications, please label "PROPOSED" or "DRAFT")

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
MJS

February 28, 2005



GREGORY MORSE  
SUPERVISORY PATENT EXAMINER  
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